CLAIMS

1. A method for synchronizing information in namespaces, comprising:

receiving an indication of a change to information in a first namespace;

based on the indication, determining if an entity exists in a second namespace related to the information;

if so, determining if the entity has a characteristic that conflicts with the information; and

if a conflict exists, modifying the entity to resolve the conflict prior to applying the change to the second namespace.

2. The method of claim 1, wherein the indication of the change comprises a notice that another entity was added to the first namespace.

3. The method of claim 2, wherein the characteristic comprises a name of the other entity.

4. The method of claim 3, wherein the conflict comprises a name collision between the entity in the first namespace and the entity in the second namespace.

5. The method of claim 4, wherein modifying the entity in the second namespace comprises creating an indication that the characteristic of the entity in the second namespace has become invalid.

6.   The method of claim 5, wherein creating the indication comprises associating with the entity in the second namespace an indication that the name of the entity in the second namespace is no longer valid.

7.   The method of claim 1, wherein the information in the first namespace comprises an entity in the first namespace.

8.   The method of claim 1, wherein modifying the entity comprises altering the characteristic of the entity to eliminate the conflict.

9.   The method of claim 8, wherein the characteristic comprises a name of the entity, and wherein altering the characteristic comprises modifying the name of the entity.

10.   The method of claim 9, wherein modifying the name comprises replacing the name with a unique identifier.

11.   The method of claim 9, wherein modifying the name comprises setting a flag associated with the entity to indicate that the name of the entity is transient.

12.   A computer-readable medium having computer-executable instructions for performing the method of claim 1.

13. A method for synchronizing information in namespaces, comprising:

    receiving an indication of a change to information in a first namespace;

    based on the indication, determining if an entity exists in a second namespace related to the information;

    if not, creating a representation of the entity within the second namespace.

14. The method of claim 13, wherein the indication of the change comprises a notice of a reference to the entity in the second namespace.

15. The method of claim 14, wherein the reference indicates that the information in the first namespace refers to the entity in the second namespace.

16. The method of claim 15, wherein the representation of the entity comprises a phantom entity in the second namespace.

17. The method of claim 16, wherein the phantom entity includes a flag indicating the state of the phantom entity.

18. The method of claim 17, further comprising, receiving a second indication of a second change to information in the first namespace and in response to the second indication, modifying the state of the phantom entity.

19.   The method of claim 18, wherein the second indication comprises an instruction to create the entity in the second namespace.

20.   A   computer-readable   medium   having   computer-executable instructions for performing the method of claim 13.

21.   A technique for synchronizing entities within two namespaces, comprising:

    while synchronizing the two namespaces:

        identifying a conflict between a change notification received from a first namespace and a state of information within a second namespace;

        creating a temporary entity within the second namespace that allows the synchronization to proceed without interference by the conflict; and

        if the conflict becomes resolved such that the temporary entity is no longer necessary, removing the temporary entity.

22.   The technique of claim 21, wherein the conflict becomes resolved by receiving a notice to delete the temporary entity.

23.   The technique of claim 21, wherein the conflict becomes resolved by receiving a notice to make the temporary entity permanent.

24. A computer-readable medium encoded with a data structure, comprising:

a plurality of entities, each entity having

a first field having a name, the name being unique across each entity in the data structure;

a second field having an identity, the identity being globally unique; and

a third field having a phantom property, the phantom property being operative to distinguish between a first state of the entity and a second state of the entity.

25. A computer-readable medium having computer-executable components, comprising:

a synchronization environment having an associated external namespace, an associated central namespace, and a synchronization mechanism, the synchronization mechanism being configured to receive change information from the external namespace that identifies a plurality of changes to at least one object in the external namespace, the synchronization mechanism being configured to receive the change information in a first order that differs from a second order, the second order being the temporal order in which the changes occurred to the at least one object in the external namespace, the synchronization mechanism further comprising a name resolving component and a placeholder component, the name resolving component being operative to avoid name collisions and the placeholder component being operative to avoid dangling references.

26. The computer-readable medium of claim 25, wherein the central namespace includes a plurality of objects that are correlated to a corresponding plurality of objects in the external namespace.

27. The computer-readable medium of claim 25, wherein the name collision comprises an error corresponding to two objects in the central namespace having similar names.

28. The computer-readable medium of claim 27, wherein the name resolving component comprises a pair of subspaces, one subspace for transient objects, and the other subspace for non-transient objects.

29. The computer-readable medium of claim 28, wherein the transient objects comprise objects that have been identified as having a name that is no longer valid.

30. The computer-readable medium of claim 28, wherein the non-transient objects comprise objects that have not been identified as having a name that is no longer valid.

31. The computer-readable medium of claim 25, wherein the dangling reference comprises an error corresponding to one object in the central namespace referring to another object in the central namespace that does not yet exist.

32. The computer-readable medium of claim 31, wherein the placeholder component comprises an identifier on a phantom object in the central namespace.

33. The computer-readable medium of claim 32, wherein the phantom object comprises an object that is referred to by another object in the central namespace but which has not yet been formally created.